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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/809,583

03/25/2004

Jason M. Bell

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EXAMINER

LOVEL, KIMBERLY M

ART UNIT

PAPER NUMBER

2167

DATE MAILED: 11/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/809,583	<b>Applicant(s)</b> BELL ET AL.	
	<b>Examiner</b> Kimberly Lovel	<b>Art Unit</b> 2167	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 25 March 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 June 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>3/25/04</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

1. Claims 1-19 are rejected.

### ***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

**Claims 1-7** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

**Claim 1** recites a logical device. However, the device as recited can be entirely embodied in software *per se*. Software is considered to represent non-statutory subject matter.

According to MPEP 2106:

The claims lack the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 USC 101. They are clearly not a series of steps or acts to be a process nor are they a combination of chemical compounds to be a composition of matter. As such, they fail to fall within a statutory category. They are, at best, functional descriptive material *per se*.

Descriptive material can be characterized as either “functional descriptive material” or “nonfunctional descriptive material.” Both types of “descriptive material” are nonstatutory when claimed as descriptive material *per se*, 33 F.3d at 1360, 31 USPQ2d at 1759. When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994)

Merely claiming nonfunctional descriptive material, i.e., abstract ideas, stored on a computer-readable medium, in a computer, or on an electromagnetic carrier signal, does not make it statutory. See *Diehr*, 450 U.S. at 185-86, 209 USPQ at 8 (noting that the claims for an algorithm in *Benson* were unpatentable as abstract ideas because “[t]he sole practical application of the algorithm was in connection with the programming of a general purpose computer.”).

**Claims 2-7**, which are dependent on claim 1 fail to overcome the rejection and therefore are rejected on the same grounds as claim 1.

To expedite a complete examination of the instant application, the claims rejected under 35 U.S.C. 101 (nonstatutory) above are further rejected as set forth below in anticipation of applicant amending these claims to place them within the four statutory categories of invention.

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Art Unit: 2167

**2. Claims 1-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over US PGPub 2002/0147857 to Sanchez, II et al (hereafter Sanchez) in view of US Patent No 2002/0061741 to Leung et al (hereafter Leung).**

Referring to claim 1, Sanchez discloses a logical device for handling dynamic attributes in a static directory comprising:

a set of attribute declarations [list of attributes] containing at least one declaration for an attribute (see [0050]);

at least one Real-time Attribute Processor (RTAP) [persistent data manager 81] configured to determine a value for an attribute (see [0044] and [0048]);

an RTAP selector configured to select and invoke an RTAP according to a predetermined selection schema (see [0030], lines 7-15); and

a directory attribute processor configured to parse requests for access to directory attribute values, to detect requests for attributes declared in said attribute declarations, to operate said RTAP selector to invoke a corresponding RTAP (see [0056]), to receive an attribute value determined by said invoked RTAP, and to return said attribute value to a requester [populating the object] (see [0062]).

However, Sanchez fails to explicitly disclose the wherein the attributes are dynamic. Leung discloses a directory service (see abstract), including the further limitation of dynamic attributes (see [0020]) in order to process real-time data.

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize dynamic attributes as disclosed by Leung with the logical device of Sanchez. One would have been motivated to so in order to improve the efficiency when processing real-time data.

**Referring to claim 2**, the combination of Sanchez and Leung (hereafter Sanchez/Leung) discloses the logical device as set forth in claim 1 wherein said directory attribute processor is further adapted to suppress storage of said attribute value in a directory [use standard attributes] (Sanchez: see [0029]-[0031]).

**Referring to claim 3**, Sanchez/Leung discloses the logical device as set forth in claim 1 wherein said RTAP selector is adapted to select an RTAP based upon a variation of a name of said requested directory attribute (Sanchez: see [0019] and [0031]).

**Referring to claim 4**, Sanchez/Leung discloses the logical device as set forth in claim 3 wherein said name variation comprises a name identifying a function selected from the group of a logical device, a device address, a name of a JAVA class [Java objects], a name of a UNIX shared object, and a name of a dynamically linked library module (Sanchez: see [0008]).

**Referring to claim 5**, Sanchez/Leung discloses the logical device as set forth in claim 1 wherein said RTAP comprises a function selected from the group of a logical device, a device address, a name of a JAVA class [Java objects], a name of a UNIX shared object, and a name of a dynamically linked library module (Sanchez: see [0008]).

**Referring to claim 6**, Sanchez/Leung discloses the logical device as set forth in claim 1 wherein said RTAP and said directory attribute processor are configured to handle Lightweight Directory Access Protocol [LDAP] requests for attribute values (Sanchez: see [0008]).

**Referring to claim 7**, Sanchez/Leung discloses the logical device as set forth in claim 1 wherein said directory attribute processor is configured to disallow attribute modify requests for attributes declared as dynamic (Sanchez: see [0038]).

**Referring to claim 8**, Sanchez discloses a method for handling dynamic attributes in a static directory server comprising:

- providing at least one declaration for an attribute in association with a set of directory attribute declarations [list of attributes] (see [0050]);

- parsing requests for access to directory attribute values to detect requests for attributes declared in said attribute declarations (see [0056]);

- invoking at least one Real-time Attribute Processor (RTAP) selected according to a predetermined selection schema, said RTAP being configured to determine a value for an attribute declared as said set of attribute declarations, said dynamic value being unavailable from said static directory (see [0056]); and

- returning to a requester an attribute value determined by said invoked RTAP [populating the object] (see [0062]).

However, Sanchez fails to explicitly disclose the wherein the attributes are dynamic. Leung discloses a directory service (see abstract), including the further limitation of dynamic attributes (see [0020]) in order to process real-time data.

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize dynamic attributes as disclosed by Leung with the method of Sanchez. One would have been motivated to so in order to improve the efficiency when processing real-time data.

**Referring to claim 9**, Sanchez/Leung discloses the method as set forth in claim 8 wherein said step of selecting and invoking a RTAP selector comprises selecting an RTAP based upon a variation of a name of said requested directory attribute [use standard attributes] (Sanchez: see [0029]-[0031]).

**Referring to claim 10**, Sanchez/Leung discloses the method as set forth in claim 9 wherein said step of selecting an RTAP based upon an attribute name variation comprises selecting an RTAP from the group of a logical device, a device address, a name of a JAVA class [Java objects], a name of a UNIX shared object, and a name of a dynamically linked library module (Sanchez: see [0008]).

**Referring to claim 11**, Sanchez/Leung discloses the method as set forth in claim 8 wherein said step of invoking an RTAP comprises invoking an RTAP from the group of a logical device, a device address, a name of a JAVA class [Java objects], a name of a UNIX shared object, and a name of a dynamically linked library module (Sanchez: see [0008]).

**Referring to claim 12**, Sanchez/Leung discloses the method as set forth in claim 8 wherein said step of parsing a request comprises parsing a Lightweight Directory Access Protocol [LDAP] requests for attribute values (Sanchez: see [0008]).



**Referring to claim 13**, Sanchez/Leung discloses the method as set forth in claim 8 wherein said step of returning to-a requester an attribute value comprising returning said value [populating the object] according to a Lightweight Directory Access Protocol (Sanchez: see [0062]).

**Referring to claims 14-19**, the claims are directed towards a computer-readable medium and are therefore rejected on the same grounds as the method.

Art Unit: 2167

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimberly Lovel whose telephone number is (571) 272-2750. The examiner can normally be reached on 8:00 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cottingham can be reached on (571) 272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kimberly Lovel  
Examiner  
Art Unit 2167

26 October 2006  
kml

30 October 2006  
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 30 October 2006